

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

166.3
M68
No. 8

cop. 2

Farm Credit Administration
Cooperative Division
Washington, D. C.

FARMERS' GRAIN ELEVATORS AND WAREHOUSES IN
THE PACIFIC NORTHWEST, INTERMOUNTAIN STATES
AND WESTERN MONTANA, 1934-35

By

Harry E. Ratcliffe

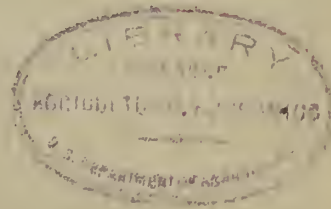
S. S. R. R.

166.3

M68

no 8

MAR 8 1937



Research, Service, and Educational Series

Miscellaneous
Report No. 8
(Preliminary)

August 1936

INV. '60

FARM CREDIT ADMINISTRATION

W. I. Myers, Governor

COOPERATIVE DIVISION

S. D. Sanders, Commissioner

Research, Service, and Educational Staff of the Cooperative Division

H. M. Bain, Assistant Commissioner in Charge

W. W. Fetrow, Chief Research Economist

COTTON

O. W. Herrmann
Otis T. Weaver
John S. Burgess, Jr.

INSURANCE

V. N. Valgren
F. C. Murphey
Gordon A. Bubolz

DAIRY AND POULTRY

T. G. Stitts
D. D. Brubaker
John J. Scanlan
Gordon Laughlin
W. C. Welden

LIVESTOCK AND WOOL

C. G. Randell
L. B. Mann
H. H. Hulbert
James M. Coon

FRUITS AND VEGETABLES

K. B. Gardner
M. C. Gay
H. C. Hensley
N. Fogelberg
H. W. Mumford, Jr.
George T. Hudson

MEMBERSHIP

James W. Jones

PURCHASING ASSOCIATIONS

Joseph G. Knapp
John H. Lister
Gerald M. Francis

GRAIN

Harold Hedges
Harry E. Ratcliffe

TOBACCO

William Collins

HISTORY AND STATISTICS

R. H. Elsworth
French M. Hyre

TRAFFIC

Charles B. Bowling

The Research, Service, and Educational Staff conducts research studies and service activities relating to problems of management, organization, policies, merchandising, sales, costs, competition, and membership, arising in connection with the cooperative marketing of agricultural products and the cooperative purchase of farm supplies and services; publishes the results of such studies; confers and advises with officials of farmers' cooperative associations; and cooperates with educational agencies, cooperative associations, and others in the dissemination of information relating to cooperative principles and practices.

Member of regional of Farmers' National Grain Corporation
 representative but not affiliated with any regional

- Figure 1. — Of the 102 cooperative grain associations studied, 43 were located in Washington, 29 in Idaho, 13 in Montana, 12 in Oregon, and 5 in Utah.

FARMERS' ELEVATORS AND WAREHOUSES IN THE PACIFIC NORTH-
WEST, INTERMOUNTAIN STATES AND WESTERN MONTANA, 1934-35

By Harry E. Ratcliffe,
Associate Agricultural Economist,
Cooperative Division, Farm Credit Administration 1/

CONTENTS

	<u>Page</u>
Summary	2
Introduction	3
Cooperative grain associations in the Pacific Northwest	3
Extent of cooperative grain-marketing activity	4
Volume of grain and net income	5
Membership and volume of grain	7
Membership and patronage	8
Membership and net income	9
Composition of current assets	10
Earnings from warehouse operations	12
Earnings from side lines	14
Expenses of operation	15
Need for further study	15
Intermountain grain cooperatives	15
Western Montana grain associations	16

1/ Acknowledgment is made of the cooperation of the State Agricultural Experiment Stations and Extension Services of Oregon, Washington, Idaho, Utah, and Montana; of the North Pacific Grain Growers, Inc., and the Inter-Mountain Grain Cooperative, Inc.; and of the managers and directors of the cooperative associations who made available their records for analysis.

SUMMARY

Information on volume, membership, and operating results was obtained from a group of cooperative grain elevator and warehouse organizations in the Pacific Northwest for the crop year 1934-35.

Only half of these associations with grain volume under 150,000 bushels had net incomes in 1934-35; whereas, 78 percent of those handling 150,000 to 300,000 bushels, and 94 percent of those handling over 300,000 bushels, had net incomes. Furthermore, those small-volume elevators and warehouses having net incomes had smaller net earnings than the medium- or large-volume associations.

A membership of 75 or more per association gave reasonable assurance of a grain volume of 150,000 bushels or more, under conditions such as existed in 1934-35.

The average membership of 61 organizations was 117. About three-fourths of the members patronized their associations. These member-patrons furnished 75 percent of the grain volume.

Chances for showing a net income from operations were 60 percent greater among associations with 75 or more members than among those with a smaller membership.

Only two-thirds of the associations whose members had an equity of less than 50 percent in their organization showed net income as compared with 85 percent of those associations with member equities above 50 percent. Gains were larger and losses smaller in the high-equity group than in the low-equity group.

Average current assets of the associations studied were made up of 15.4 percent in cash, 44.6 percent in receivables, 16 percent in inventory, and 24 percent in other items. When cash exceeded 12 percent of current assets, or when receivables were held under 30 percent, chances for operating losses were reduced substantially.

Income from warehousing operations was of major importance, as storage was one of the principal functions of such associations. Those associations able to hold direct storage costs to 2.25 cents per bushel or less, all showed net income; whereas, only two-thirds of those with higher costs had net income.

Side-line business was relatively unimportant and margins small. Sacks and twine were the major items handled.

Associations which handled large grain volumes tended to have low unit costs of operation, but data on this phase of the study were inadequate.

Farmers' grain-marketing associations in the Intermountain region of Utah and Idaho suffered from low grain volume in 1934-35. They need greater volume of business, either through addition of more side lines, greater support from members, or more members.

Western Montana farmers' elevators and warehouses operated successfully in 1934-35. As volume of grain handled or number of members increased, the chances for operating successfully also increased.

INTRODUCTION

A study of local grain cooperatives was started in 1935 in the States of Utah, Idaho, Oregon, Washington, and western Montana for the purpose of developing useful business guides or measuring sticks, based upon the actual experiences of the cooperatives themselves. Conclusions drawn from such experiences should be of value; first, to point out to both management and members some uses which may be made of information contained in the audit and business records of their associations; and second, to indicate to the management some points of attack in attempting to improve operating results.

This study was undertaken by the Cooperative Division of the Farm Credit Administration with the cooperation of the following agencies: most of the local cooperative elevators and warehouses in the area; the several departments of agricultural economics and extension services of the State agricultural colleges in the five States concerned; and the North Pacific Grain Growers, Inc., the Inter-Mountain Grain Cooperative, Inc., and the Farmers National Grain Corporation. Data were obtained for only the 1934-35 crop year, thus limiting the interpretations to tentative conclusions. Data for additional years will be needed before definite conclusions can well be reached.

The data obtained from the associations in the Pacific Northwest (Oregon, Washington, and northern Idaho) were fairly complete; whereas, those gathered in the Intermountain region (Utah and southern Idaho) and in western Montana were rather meager. Hence, this is not only a preliminary report of progress, but deals mainly with the operations of the Pacific Northwest group of elevators and warehouses.

COOPERATIVE GRAIN ASSOCIATIONS IN THE PACIFIC NORTHWEST

Grain marketing methods in the Pacific Northwest differ in several important respects from methods followed in Midwestern States. While bulk handling of grain is almost universal in the Middle West, a considerable part of the grain in the Pacific Northwest is still handled in sacks though bulk-handling has been gaining in that area in recent years. As a result, many of the facilities are not built or equipped for gravity handling of grain, but are of the "flat" type suitable for sack-handling and storage.

Facilities for farm storage of grain are quite meager in the Pacific Northwest, so the major part of the market grain moves immediately to the local shipping point. Unless sold immediately - and ordinarily it is not - the wheat is stored in sacks or in bulk at the local station. Hence the available storage capacity at each local shipping point is usually quite large. Much of the income of the local elevators or warehouses ordinarily comes from storage charges.

In this area the grain is not necessarily sold to the local agency which provides the handling and storage services, whereas in the Middle West the grain is nearly always sold by the farmer to the agency to which it is first delivered. The Pacific Northwest has no hedging market which affords entirely satisfactory protection for the kind of grain grown there. At times, the grower retains title to his grain until it has been delivered to a mill or terminal agency, and pays the local agency an established handling charge.

As a result of the foregoing and other differences in grain-handling methods between the Middle West and the Pacific Northwest, some of the problems of northwestern grain producers are distinct from those of grain producers in other areas.

Extent of Cooperative Grain-Marketing Activity

Cooperative effort has made substantial headway in the marketing of grain in the Pacific Northwest. In 1935, when the survey was made, there were 103 local farmers' elevator and warehouse associations in this area which comprises the State of Washington, northeastern Oregon, northern Idaho and a very small part of northwestern Montana. In the course of the survey data were obtained from 68 of these associations. The location of these cooperatives is shown in figure 1. There were 43 in Washington, 12 in Oregon, and 13 in Idaho.

Sixty-one of the 103 organizations were members of the North Pacific Grain Growers, Inc., a regional cooperative affiliated with the Farmers National Grain Corporation. Of this group, 34 were located in Washington, 14 in Idaho, 12 in Oregon, and 1 in Montana. The remaining 42 farmers' elevators and warehouses of the area were not affiliated with any regional or national cooperative marketing organization, but were operating independently. Most of this group were located in the State of Washington.

Of the 61 local associations affiliated with the North Pacific regional, 7 (5 in Washington and 2 in Idaho) were without facilities of their own. The grain delivered by their membership was handled through facilities of independent cooperatives operating in the same communities. One manager served both the affiliated and the independent local in each of such communities. Two of the 61 North Pacific locals did not operate in 1934-35. All but 4 of the locals of this regional were visited during the survey.

Of the independent elevators and warehouses which were considered to be farmer owned and controlled, all except 2 or 3 were visited during the survey. The survey revealed that only 11 of these 42 associations were so organized and controlled that they could qualify as cooperatives under the Capper-Volstead Act. Most of them were older organizations which had paid little attention to membership relations. As a result, much of the capital stock had fallen into the hands of nonproducers, until the organizations had come to be little more than stock companies. Although most of these organizations, which no longer can be considered as truly cooperative, were visited, no detailed records were obtained from them.

Membership lists were obtained from 66 of the 103 associations reported. These had a total membership of 7,426, including a little duplication in the 7 cases mentioned above where the North Pacific local utilized the facilities of an independent local, the two operating jointly. This membership of 7,426 is equal to approximately 42 percent of the farms growing wheat^{2/} in the 25 counties where the 66 organizations are located. Several other cooperative elevators and warehouses, not included in the survey, are located in the 25 counties, so that the total number of cooperative members is probably equal to somewhat more than 42 percent of the number of farmers growing wheat. Three-fourths of the members of the 58 associations for which patronage figures were available, patronized their own organizations in 1934-35. Of the grain volume handled by these cooperatives, 75 percent was received from members, and 25 percent from nonmembers.

The records on which this report is based indicated that about 50 percent of the grain shipped from the local stations served by the cooperatives was handled by them. Furthermore, 60 percent of the carload shipments made by these associations was sold through a cooperative terminal sales agency, the Farmers National Grain Corporation. Of the remaining shipments, 24 percent went to other terminal grain companies and 16 percent direct to mills.

From the above statements it is evident that cooperative grain marketing has shown considerable progress in the Pacific Northwest, but that there is still opportunity for expansion and need for extending and improving cooperative facilities. Some of the problems of these cooperatives, as revealed by the survey, are given below.

Volume of Grain and Net Income

Interpretations of the results of this study, as already suggested, are limited by the fact that operations for only one year are included. Furthermore, the 1934 wheat crop was considerably below the average production of the area. The effect of the short crop was, of course, a reduction in the volume handled by the cooperative elevators and warehouses. A few associations were in sections where the crop was extremely short and thus were adversely affected. The price of wheat in 1934-35 was relatively high as compared with that for preceding years. To the extent that higher prices permit the taking of wider margins, the improved price during 1934-35 was a factor serving to improve operating results.

^{2/} U. S. Dept. of Commerce, Census of Agriculture, 1935, Washington, Oregon, Idaho and Montana, Statistics by Counties.

The 1934-35 experience of the grain cooperatives of the Pacific Northwest proved no exception to the rule that volume of grain must be kept above a certain minimum, varying with locality and conditions, if losses are to be avoided. Associations with volume above this minimum may incur losses, of course, if other operating conditions are unfavorable. It is difficult, however, for an organization handling a small grain volume to avoid a loss or show a substantial gain, unless the grain business is supplemented with side lines or other sources of income.

Grain volume figures were available for 52 of the northwestern associations included in the study. Seventy-five percent of them made net incomes^{3/} in 1934-35 (table 1). Of those handling 150,000 bushels or less, only 50 percent showed net incomes; whereas, 94 percent of those handling 300,000 bushels or more made incomes. Six of the 8 low-volume associations which had losses handled less than 100,000 bushels.

Table 1.-- Relation between volume of grain handled and net income, 1934-35.

Bushels of grain handled	Total associations studied Number	Associations showing net loss Number	Associations showing net income Number	Percentage of associations showing net income Percent
Less than 150,000	16	8	8	50.0
150,000 - 300,000	18	4	14	77.8
More than 300,000	18	1	17	94.4
Total	52	13	39	75.0

Not only were net incomes less frequent among the low-volume associations, but the incomes made were of smaller amounts than among the medium-volume and large-volume associations (table 2). None of the gains shown by the small-volume group were in excess of \$3,000. Of the 14 medium-volume associations which had net incomes, 8 made less than \$3,000 and 6 had net earnings in excess of \$3,000. Only 4 of the 17 large-volume associations showing income had net earnings below \$3,000 and 6 of them made over \$6,000.

^{3/} In calculating net income or loss, all expenses including interest on borrowed money, depreciation, and current bad debts are deducted from gross income. Interest on capital stock and patronage dividends are paid from net income.

Table 2.- Range in net incomes for 39 associations, by volume groups, 1934-35.

Range in net income Dollars	Associations handling --					
	Less than 150,000 bushels		150,000 - 300,000 bushels		More than 300,000 bushels	
	Number	Percent	Number	Percent	Number	Percent
0 - 1,500	3	37.5	5	35.7	1	5.9
1,501 - 3,000	5	62.5	3	21.4	3	17.6
3,001 - 4,500	0	0	3	21.4	5	29.4
4,501 - 6,000	0	0	2	14.3	2	11.8
Over 6,000	0	0	1	7.2	6	35.3
Total	8	100.0	14	100.0	17	100.0

Membership and Volume of Grain

The number of members of an association is, of course, closely associated with volume of grain handled, unless the number of member-patrons is small in proportion to total membership, or on the other hand, the average volume per member is relatively high. As a rule, it is important that the number of loyal members be maintained above a certain minimum. When membership is small, considerable nonmember business is usually needed if sufficient volume is to be obtained.

Among the northwestern associations, membership and volume were closely related in 1934-35. Seventy-one percent of the associations with less than 75 members handled less than 150,000 bushels of grain, and only 11.8 percent handled as much as 300,000 bushels. In contrast, 62.5 percent of the associations having 150 or more members handled 300,000 or more bushels of grain (table 3).

Table 3.- Relation between number of members and volume of grain handled for 52 associations, 1934-35.

Number of members	Percentage of associations handling --		
	Less than 150,000 bushels	150,000 - 300,000 bushels	More than 300,000 bushels
	Percent	Percent	Percent
Less than 75	70.6	17.6	11.8
75 - 149	15.8	52.6	31.6
150 and over	6.3	31.2	62.5

These data indicate that in order to assure a volume of 150,000 or more bushels of grain under conditions such as existed in 1934-35 in the Pacific Northwest, the membership of the associations should be maintained above 75.

Membership and Patronage

The average membership of 61 cooperative grain organizations in the Pacific Northwest for 1935 was 117. Considerable variation in membership occurred among these associations. Table 4 shows how many associations fall in each of the several size groups indicated. Twenty-three of the 61 associations had less than 75 members; whereas, 16 had 150 or more members.

Table 4.- Range in size of membership of 61 cooperative grain associations, 1934-35.

Members per association	Associations in each membership group	
	<u>Number</u>	<u>Percent</u>
Less than 75	23	37.7
75 - 149	22	36.1
150 or more	16	26.2
Total	61	100.0

The proportion of such members actually patronizing the association is of as much importance as the number of members. It was found that 75.6 percent of the members of the 58 associations for which member-patronage figures were available gave most or all of their business to their own organization; or in other words, 90 out of the average membership of 119 for the 58 associations gave most or all of their patronage to their association.

This northwestern group of elevator and warehouse associations showed a substantial volume of business per member. For the 44 associations for which complete data were available, the average volume of grain per member (excluding grain received from nonmembers) was 1,720 bushels with a sales value of \$1,245. Not all members patronized the association, however. Considering member-patrons, the average grain volume per member-patron was 2,229 bushels, with a sales value of \$1,613. In addition to the volume supplied by member-patrons, these 44 associations also handled for nonmember-patrons grain equal to one-third of that supplied by members, or 25 percent of the total volume handled.

One of the problems faced by the northwestern associations, as well as by cooperative elevators and warehouses generally, is that of extending their membership among nonmember-patrons. With the possible exception of communities where a large volume of grain can be assured from a relatively small number of members, it would seem that the associations in this area should strive for a membership of 75 or more. About 62 percent of those organizations surveyed had a membership of such size (table 4).

Membership and Net Income

When a cooperative association shows a net income from operations, it presents evidence of its ability to meet competition, cover operating expenses and safeguard its capital structure. It does not necessarily show that the association is giving all the service that its members might well expect, but it does offer one measure of successful operation. The data obtained from the cooperative elevators and warehouses of the Pacific Northwest show a fairly close association between large membership and net gains (table 5).

Table 5.- Relation between number of members and net income for 61 associations, 1934-35.

Number of members	Total associations studied <u>Number</u>	Associations showing net loss <u>Number</u>	Associations showing net income <u>Number</u>	Percentage of associations show- ing net income <u>Percent</u>
Less than 75	23	10	13	56.5
75 or more	38	4	34	89.5
Total	61	14	47	77.0

Of those organizations having less than 75 members, there were 56.5 percent which made net gains in 1934-35; whereas, 89.5 percent of those with 75 or more members showed net income. Approximately 3 out of every 4 of the organizations having losses had less than 75 members, while only 1 out of every 4 of those showing net income were in the smaller membership group.

Of the 23 associations having smaller membership, 10 showed losses, 3 made net gains of less than \$500, and the incomes of the remaining 10 ranged from \$1,118 to \$4,660. Of the 38 organizations with 75 or more members, only 4 experienced losses; whereas, 2 made net incomes of less than \$500, while the incomes of the remaining 32 ranged from \$602 to \$25,243.

Another aspect of membership is the equity which the members have in their own associations; that is, the amount of the assets of the organization in excess of the amount required to cover the claims of creditors. The 61 associations were separated into two groups: Those in which the membership had an equity of less than 50 percent; and those in which the membership equity was 50 percent or more.

As might well be expected, there is a positive relationship between high membership equity and net incomes (table 6). Two-thirds of the 27 associations having membership equities of less than 50 percent made net incomes; whereas, 85 percent of the group having high membership equities showed net incomes in 1934-35. Furthermore, table 6 shows that the average loss of the high-equity associations having losses was smaller and the average income of those showing incomes was larger than in the case of the low-equity group.

Table 6.- Number and percentage of associations showing net losses and net incomes by membership-equity groups, 1934-35.

Percentage of membership equity	Total associations studied	Associations showing net loss			Associations showing net income		
		Number studied	Percentage of total	Average loss ^{1/}	Number studied	Percentage of total income	Average
	<u>Number</u>	<u>Number</u>	<u>Percent</u>	<u>Dollars</u>	<u>Number</u>	<u>Percent</u>	<u>Dollars</u>
Less than 50	27	9	33.3	- 732.51	18	66.7	2,348.05
50 and over	34	5	14.7	- 136.85	29	85.3	3,141.39

^{1/} Median average.

Composition of Current Assets

The current assets of the Pacific Northwest group of elevators and warehouses are made up of items somewhat different from those of cooperatives in the Hard Red Winter wheat States. Loans or advances of various types are made to the patrons of the associations and often make up a major portion of the current assets. The funds needed for these advances are seldom furnished by the local associations, but are obtained by the associations from the regional cooperative organization or other credit sources. Those associations affiliated with the North Pacific Grain Growers, Inc., borrowed most of the funds needed for making advances from that regional.

Advances are made to growers for a variety of purposes. Occasionally they are made for preharvest or harvest expenses of the producer. Most often they are made against grain stored in the warehouses of the association, the association taking warehouse receipts as security and discounting the grower's paper with the credit agency from which funds are obtained. Occasionally funds are advanced against consigned grain of members, pending sale and final settlement.

Offsetting the asset items of the balance sheet evidencing these advances are usually liability items indicating either funds borrowed or contingent liability assumed in discounting the grower's paper. Since our interest in analyzing the current assets of these northwestern associations is in the receivables arising from the side-line business, rather than in those evidencing advances, the latter are disregarded in the analysis of the composition of current assets.

Of the current assets other than advances to patrons of the 61 northwestern associations, cash represented 15.4 percent; receivables, 44.6 percent; inventory, 16.0 percent; and other items, 24.0 percent. Ordinarily when cash makes up 20 percent of the current assets of a grain elevator or warehouse, it is considered in satisfactory cash position. The nature of operations, however, may cause variations one way or the other from the percentage indicated. In the case of the northwestern cooperatives, a lower proportion of cash to other current assets may not be out of line, since the side-line business is relatively small, since credit is watched closely, and since funds can be realized promptly on grain shipments.

Noting the cash position of the 61 associations, it was found that an association with as much as 12 percent of current assets in the form of cash appeared to be in safe operating position. The chances for operating loss were materially greater when cash fell below 12 percent of the total (table 7). Of the 34 associations having less than 12 percent of current assets in cash, one-third had net losses in 1934-35. Of 27 associations having more than 12 percent of current assets in cash, only 3 had operating losses.

Table 7.- Relation between cash assets and net income or loss, 1934-35.

Percentage of current assets in cash	Total associations studied	Associations showing net loss	Associations showing net income	Percentage of associations show- ing net income
	<u>Number</u>	<u>Number</u>	<u>Number</u>	<u>Percent</u>
0 - 12	34	11	23	67.6
More than 12	27	3	24	88.9
Total	61	14	47	77.0

The percentage which receivables (other than advances to patrons) are of current assets gives some indication of the care exercised in extending credit and the extent to which collections are pushed. It may thus be reflected in operating results. When receivables were allowed to exceed 30 percent of current assets, the chances for operating losses were materially greater in 1934-35 (table 8). Of 11 northwestern associations whose receivables were less than 30 percent of current assets, every one reported a net income for 1934-35. Of 50 associations with receivables in excess of 30 percent, 14 reported net losses in 1934-35.

Table 8.- Relation between receivables and net income or loss, 1934-35.

Percentage of current assets in receivables	Total associations studied <u>Number</u>	Associations showing net loss <u>Number</u>	Associations showing net income <u>Number</u>	Percentage of associations show- ing net income <u>Percent</u>
0 - 30	11	0	11	100.0
More than 30	50	14	36	72.0
Total	61	14	47	77.0

In this study it was not possible to separate stock subscription notes from receivables arising from sales of commodities. In a number of cases, receivables were considerably increased because of such notes. In the light of this, it should be said that the credit position of the Pacific Northwest associations was very good on the whole, with the major part of the receivables current and practically all considered collectible.

Earnings from Warehouse Operations

Income from warehouse operations was of major importance to most of the Pacific Northwest cooperative elevator and warehouse associations. This income is derived from handling and storing charges. There is little farm storage space available in the Pacific Northwest. Farmers, therefore, haul their grain to nearby warehouses at harvest time, and it is left there in storage until sold. A month's free storage is usually allowed, after which the most common monthly charge is 10 cents per ton.

Some idea of the importance of storage operations of these associations is given by the storage capacity which they had available. In 1934-35, 50 local associations had a combined storage capacity of nearly 22 million bushels, or over 436,000 bushels per association. A wide variation was found in the storage capacity of these associations, which ranged from 40,000 to 1,500,000 bushels. The available storage space was not used quite to capacity in 1934-35, because of a relatively short crop.

Considerable variation in yearly income from storage is to be expected, because of the variation in the time the grain remains in storage, and in the size of the grain crop. In some years grain is left in storage much longer than in other years, depending upon the prevailing opinion of farmers regarding the future course of grain prices.

A source of income from warehouse operations other than from storage is a charge usually made for handling. The most common charges are 75 cents and \$1 per ton. In numerous cases the former charge is made for sacked grain and the latter for bulk handling. Since no storage charge is made for the first 30 days, it may be considered that the storage cost for that period is included in the handling charge.

Attention might be called to an interesting difference in operating procedure between midwestern cooperative elevators and warehouses and those of the Pacific Northwest. In the former, no definite handling charge is made. Instead, the margin between the purchase price and the sale price is expected to be sufficient to cover handling costs. In the Pacific Northwest an established handling charge is made. If the grain handled for patrons is purchased by the association, then the margin between the purchase price and the sale price is mainly to cover the risks from price changes.

Despite the distinctions between income from storage, from handling, and from margins in the northwestern area, as cited above, the associations' accounting records often did not permit a separation of income from these several sources. In some cases, handling and storage earnings were classed as warehouse income, while income from handling and from grain margins were not separated. Hence an analysis of warehouse operations is difficult to make on the basis of the data available.

Data were available for 24 associations so that the direct costs of warehousing grain could be determined. These costs do not include the proportionate share of managerial and office expense chargeable to warehouse operations. Such warehouse expense varied from .85 cent to 6.56 cents per bushel of grain warehoused. Ten of the 24 associations had costs ranging between 2.0 and 2.5 cents per bushel. There was a definite relationship apparent between low warehousing costs and satisfactory operating results (table 9). Of 12 associations having warehousing costs of 2.25 cents or less per bushel, every one had a net income in 1934-35. Of 12 associations with costs in excess of 2.25 cents, only 8 reported net incomes.

Table 9.- Relation between expense per bushel warehoused and net incomes, 1934-35.

Cost per bushel warehoused	Total associations studied <u>Number</u>	Associations showing net income <u>Number</u>	Percentage of associations showing net income <u>Percent</u>
2.25 cents or less	12	12	100.0
Over 2.25 cents	12	8	66.7

Earnings from Side Lines

A smaller proportion of the grain cooperatives of the Pacific Northwest handle side lines than of the grain cooperatives in the midwestern States. Of 55 associations for which complete sales data were available, 10 handled no side lines at all; whereas, 14 others handled only sacks and twine used in the sack handling of grain. Side-line sales made up only 11.1 percent of the total sales of these 55 associations, and gross earnings from side lines amounted to 11.6 percent of total gross income from all sources.

The principal side lines handled, in addition to sacks and twine, were livestock, general merchandise, petroleum products, coal, feed and implements. Sales of sacks and twine made up 44.0 percent of all side-line sales, sales of livestock made up 16.4 percent, general merchandise 15.7 percent, petroleum products 8.5 percent, coal 5.7 percent, feed 3.3 percent, and other items 3.7 percent (table 10).

Table 10.- Composition of side-line sales and average gross margin per dollar of sales, 1934-35.

Side lines	Percentage of total side-line sales <u>Percent</u>	Average margin per dollar of sales <u>Cents</u>
Sacks and twine	44.0	6.8
Livestock	16.4	1.3
Merchandise	15.7	8.1
Petroleum products	8.5	13.4
Coal	5.7	16.1
Feed and flour	3.3	6.1
Implements	2.6	13.0
Accessories	.1	3.4
Miscellaneous	3.7	17.5
Total or average	100.0	7.7

Side lines apparently are handled on rather narrow margins in the Pacific Northwest. The average margin realized on all side-line sales in 1934-35 was 7.7 cents per dollar of sales. On the several commodities handled, the average margins per dollar of sales were as follows: Sacks and twine, 6.8 cents; livestock, 1.3 cents; general merchandise, 8.1 cents; petroleum products, 13.4 cents; coal, 16.1 cents; and feed, 6.1 cents. Comparing these margins with those usually taken by mid-western elevators and warehouses on side lines, all are quite low except the margin on coal.

The question arises whether these side lines carry their full share of the expenses of the Pacific Northwest associations. The tendency may be to carry the supplies mainly for the convenience of patrons with the expectation that the margins will cover any additional or direct costs arising from handling rather than that they will yield their full share of all expense.

Expenses of Operation

The records obtained from the associations were not sufficiently complete to provide accurate data on operating expenses per dollar of sales of grain and side lines. There appeared to be a wide range in such expenses. Several factors contributed to this range. Some associations had large facilities, but handled little volume. There was a wide variation in the volume of side-line business done. Warehousing activities differed greatly. Despite the variable factors other than volume, there is some evidence that the associations with large volume tended to have lower unit costs. It is hoped that more complete data on operating costs can be obtained for subsequent years, to be presented in later reports.

Need for Further Study

The foregoing report calls attention to some of the problems and factors which the managements of the Pacific Northwest elevator and warehouse associations may consider in their efforts to improve operating efficiency. Since this study covers only one year's experience, no final and definite conclusions are justified. By following up this study in succeeding years, the actual experiences of the cooperative elevators and warehouses of the Pacific Northwest can be drawn on to develop business guides or standards which may be used by those charged with the responsibilities of management. Efficient operation of existing cooperatives will give added impetus to cooperative effort.

INTERMOUNTAIN GRAIN COOPERATIVES

The 21 cooperative grain marketing associations from which data were secured are located in southern Idaho and northern Utah. Their distribution in the two States is shown in figure 1. All were affiliated with the Intermountain Grain Cooperative, Inc., a regional of Farmers National Grain Corporation.

Complete survey records were difficult to obtain in this region because of inadequate accounting systems. Attention might be called here to the need for adequate accounting records in any cooperative marketing organization. Furthermore, the records should be audited by a trained accountant at regular intervals.

Because of the limited information obtainable, only a few points brought out by the survey will be discussed. The records of 15 associations were complete enough to give some information on operating results. Of this number, only 3 reported net incomes for 1934-35. One apparent reason for such a poor showing was the very short grain crop of 1934, which cut down volume very materially. Membership data were obtainable on 16 associations. The number of members per association varied from 15 to 278, the average number being 96. Members supported their organizations rather poorly, member-patrons varying from 11 to 108. Only one-third of the members of the association reporting the largest membership supported their company by giving it their patronage. In other areas studied, the loyalty of members as indicated by their patronage was closely associated with successful operation. Among the Intermountain associations, those with over 50 percent of their members as patrons made net incomes or suffered only small losses, whereas member-patronage less than 50 percent was associated with the larger operating losses.

Associations in the Intermountain area had developed very little side-line business. Consequently, when grain volume dropped to a very low point, as in 1934-35, no other source of income was available to carry a part of the operating expenses. Since grain volume is quite variable from year to year, the addition of side lines may tend to give greater stability of income. This immediately raises the question as to what side lines are feasible and fit in best with the handling of grain.

Summarizing this brief statement regarding the Intermountain cooperatives, two definite problems are apparent. One is that of membership - securing greater support from the present membership and enlarging the membership in the community. A second is that of increasing volume of business. More membership patronage will work to this end. The possibilities of side lines should be investigated.

WESTERN MONTANA GRAIN ASSOCIATIONS

In western Montana records were secured for 1934-35 from 13 cooperative associations. These associations are located in the vicinity of Great Falls (see fig. 1). Eleven of the 13 are affiliated with regionals of Farmers National Grain Corporation.

The 1934 wheat crop in the territory served by these organizations was relatively large and good prices were received. This enabled the cooperatives to operate under favorable conditions, and good operating results were reported. Financial data were obtained from 12 associations. Each reported a net gain for 1934-35, only one being less than \$2,000. The average net gain was over \$10,000 per association.

The relation between members per association and net operating results is shown in table 11. While the number of cases is too small to serve as a basis for definite conclusions, yet there is evident a definite upward trend in net gains as membership increases. The association with largest membership had only a moderate net income, mainly because only 47 percent of its members patronized their own organization, again emphasizing the importance of member-patronage.

Table 11.- Relation between membership and net income of 11 cooperative associations in Montana, 1934-35.

Number of members per association	Number of records studied	Associations making a net income of --		
		Less than \$5,000	\$5,000 to \$10,000	\$10,000 or more
Less than 75	3	1	2	0
75 - 149	4	2	0	2
150 and over	4	0	2	2
Total	11	3	4	4

The experience of this small group of western Montana associations again emphasizes the effect of volume on operating results (table 12). The volume of grain handled varied from 104,000 to 582,000 bushels, or an average of 295,000 bushels per association. Only one association with a volume in excess of 200,000 bushels had a net income of less than \$5,000. When volume dropped to about 100,000 bushels, chances for satisfactory operating results were less favorable.

Table 12.- Relation between volume of grain handled and net income for 12 cooperative associations in Montana, 1934-35.

Net income per association	Number of associations studied	Associations handling a volume of --		
		Less than 200,000 bushels	200,000 to 300,000 bushels	300,000 bushels or more
Less than \$5,000	4	3	1	0
\$5,000 - \$9,000	4	2	1	1
\$10,000 or more	4	0	0	4
Total	12	5	2	5

The current financial position of these western Montana associations was very good on the whole. Cash made up a sufficiently large proportion of current assets. The accounts receivable were largely current and nearly all were considered collectible. An association with current assets in liquid condition is usually one which is operating successfully.

The analysis of western Montana associations is limited because the data are incomplete in certain respects and also because the number of records is rather small. Additional data will be needed in order that standards of operation may be more definitely determined.

v. ug. 1936.
v. 1936.

卷之五

S. S. R. F.



